IN THE U.S. PATENT AND TRADEMARK OFFICE

Applicant: MARUO, Tat

MARUO, Tatsuya et al

Conf.:

Appl. No.:

NEW

Group:

Filed:

September 19, 2001

Examiner:

For:

ION-CONDUCTIVE

COMPOSITION,

GEL

ELECTROLYTE,

E, NON-AQUEOUS AND ELECTRICAL

ELECTROLYTE DOUBLE-LAYER

BATTERY, A

CAPACITOR

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents Washington, DC 20231

September 19, 2001

Sir:

The following preliminary amendments and remarks are respectfully submitted in connection with the above-identified application.

## IN THE CLAIMS:

Please amend the claims as follows:

5. (Amended) A gel electrolyte prepared by shaping the thermoplastic resin according to claim 1, then immersing the shaped resin in an electrolyte solution to effect swelling.

- 7. (Amended) A non-aqueous electrolyte battery comprising:
  - a positive electrode,
  - a negative electrode,
- a separator disposed between the positive and negative electrodes, and

an electrolyte solution;

wherein, of the positive electrode and the negative electrode, either the positive electrode comprises a positive electrode current collector coated with a positive electrode binder composition composed primarily of the thermoplastic resin of claim 1 and a positive electrode active material, or the negative electrode comprises a negative electrode current collector coated with a negative electrode binder composition composed primarily of the thermoplastic resin of claim 1 and a negative electrode active material.

- 8. (Amended) A non-aqueous electrolyte battery comprising:
  - a positive electrode,
  - a negative electrode,
- a separator disposed between the positive and negative electrodes, and
  - an electrolyte solution;

wherein the positive electrode comprises a positive electrode current collector coated with a positive electrode binder composition composed primarily of the thermoplastic resin of claim 1 and a positive electrode active material, and the negative electrode comprises a negative electrode current collector coated with a negative electrode binder composition composed primarily of the thermoplastic resin of claim 1 and a negative electrode active material.

- 13. (Amended) An electrical double-layer capacitor comprising: a pair of polarizable electrodes,
- a separator disposed between the polarizable electrodes, and,

an electrolyte solution;

wherein one or both of the pair of polarizable electrodes is comprised of a current collector coated with a polarizable electrode binder composition composed primarily of the thermoplastic resin of claim 1 and activated carbon.

## REMARKS

The claims have been amended to delete the improper multiple dependencies and to place the application into better form prior to examination.

Entry of the above amendments is earnestly solicited. An early and favorable first action on the merits is earnestly solicited.

Attached hereto is a marked-up version showing the changes made to the application by this Amendment.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachments

## VERSION WITH MARKINGS TO SHOW CHANGES MADE

## IN THE CLAIMS:

The claims have been amended as follows:

- 5. (Amended) A gel electrolyte prepared by shaping the thermoplastic resin according to [any one of claims 1 to 4] claim 1, then immersing the shaped resin in an electrolyte solution to effect swelling.
- 7. (Amended) A non-aqueous electrolyte battery comprising:
  - a positive electrode,
  - a negative electrode,
- a separator disposed between the positive and negative electrodes, and

an electrolyte solution;

wherein, of the positive electrode and the negative electrode, either the positive electrode comprises a positive electrode current collector coated with a positive electrode binder composition composed primarily of the thermoplastic resin of [any one of claims 1 to 4] <a href="claim 1">claim 1</a> and a positive electrode active material, or the negative electrode comprises a negative electrode current collector coated with a negative

electrode binder composition composed primarily of the thermoplastic resin of [any one of claims 1 to 4] <u>claim 1</u> and a negative electrode active material.

- 8. (Amended) A non-aqueous electrolyte battery comprising:
  - a positive electrode,
  - a negative electrode,
- a separator disposed between the positive and negative electrodes, and

an electrolyte solution;

wherein the positive electrode comprises a positive electrode current collector coated with a positive electrode binder composition composed primarily of the thermoplastic resin of [any one of claims 1 to 4] <a href="claim 1">claim 1</a> and a positive electrode active material, and the negative electrode comprises a negative electrode current collector coated with a negative electrode binder composition composed primarily of the thermoplastic resin of [any one of claims 1 to 4] <a href="claim 1">claim 1</a> and a negative electrode active material.

13. (Amended) An electrical double-layer capacitor comprising: a pair of polarizable electrodes,

a separator disposed between the polarizable electrodes, and,

an electrolyte solution;

wherein one or both of the pair of polarizable electrodes is comprised of a current collector coated with a polarizable electrode binder composition composed primarily of the thermoplastic resin of [any one of claims 1 to 4] <a href="claim 1">claim 1</a> and activated carbon.